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T. Stapleton
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APPLICANTS:	Dennis W. Vance et al.
APPLICATION NO.:	Unassigned
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TITLE:	LIGHT TRANSMISSIVE FILTER HAVING ANISOTROPIC PROPERTIES AND METHOD OF FABRICATION
EXAMINER:	Unassigned
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Signature:	A. C. Smith		
Typed or Printed Name:	**Albert C. Smith, Reg. No. 20,355**	Dated:	12/31/01
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PRELIMINARY AMENDMENT

Sir:

Prior to the examination of the patent application identified above, please amend the application by including the new claims 11-16. All of the claims in this application are set forth as follows:

1. A light filter comprising:

a first layer of substantially opaque material including front and back surfaces;

a plurality of light transmissive beads disposed in a single-layer array within the first layer of opaque material with first portions of the beads protruding through the front surface of the first layer to receive incident light and with remaining portions of the beads not disposed within the first layer penetrating through the back surface of the first layer of opaque material to form light transmissive apertures therethrough; and

a second layer of light-dispersing material having asymmetrical dispersion characteristics along orthogonal axes, the second layer being disposed relative to the beads and first layer to disperse light incident thereon that is normal to the orthogonal axes for enhancing light transmission within the output angle along one of the orthogonal axes relative to light transmission within the output angle along another of the orthogonal axes.

2. A light filter according to claim 1 in which the second layer is disposed to receive light emanating from the apertures.

3. A light filter according to claim 1 in which the second layer is interposed between incident light and the front surface of the first layer.

4. The light filter according to claim 2 including a layer of transparent lenses overlaying the first portion of beads having radius R protruding through the

front surface of the first layer, said layer of lenses including curved surfaces disposed to receive incident light and overlaying the first portion of the beads at selected radii of curvature relative to radius R of the beads.

5. The light filter according to claim 3 in which the second layer includes elongated prismatic lenses oriented along one of the orthogonal axes, and including surfaces oriented normal to incident light and sloping surfaces oriented skewed to incident light, the second layer being interposed between incident light and the first portion of beads protruding from the opaque layer for enhancing light transmission within one output angle along a horizontal axis relative to light transmission within another output angle along the vertical axis.

6. The light filter according to claim 2 in which the second layer includes elongated prismatic lenses oriented in substantial alignment with a vertical axis as one of the orthogonal axes, and including surfaces oriented normal to incident light and sloping surfaces oriented skewed to incident light, the second layer being disposed to receive light emanating from the apertures for enhancing light transmission within one output angle along the horizontal axis relative to light transmission within another smaller output angle along the vertical axis.

7. The light filter according to claim 5 in which the sloping surfaces include multiple facets at different sloping angles.

8. The light filter according to claim 5 in which the sloping surfaces

adjacent the surfaces normal to incident light slope at different angles.

9. A light filter comprising:

a first layer of substantially opaque material including front and back surfaces;

a plurality of light-transmissive, substantially spherical beads disposed in a single-layer array within the first layer of opaque material with first portions of the beads protruding through the front surface of the first layer to receive incident light and with remaining portions of the beads not disposed within the first layer penetrating through the back surface of the first layer of opaque material to form light transmissive apertures therethough;

a support layer of transparent material disposed to receive light emanating through the apertures; and

a prism layer disposed relative to the first portion of the beads and the support layer to disperse light supplied thereto asymmetrically along orthogonal axes, the prism layer including a plurality of aligned prisms each including a plurality of substantially planar surfaces oriented along a substantially vertical axis, the prisms dispersing light passing therethrough within a greater angle along the horizontal axis than along the vertical axis.

10. The light filter according to claim 9 in which the prism layer is a film.

11. (New) A light filter comprising:

a first layer of substantially opaque material including front and back surfaces;

a plurality of light-transmissive, substantially spherical beads disposed in a single-layer array within the first layer of opaque material with first portions of the beads protruding through the front surface of the first layer to receive incident light and with remaining portions of the beads not dsposed within the first layer penetrating through the back surface of the first layer of opaque material to form light transmissive apertures therethough;

a support layer of transparent material disposed to receive light emanating through the apertures; and

a second layer of substantially transparent material interposed between the back surface of the first layer and the support layer, with said remaining portions of the beads protruding into the second layer to increase the size of the light transmissive apertures through the first layer.

12. (New) The light filter according to claim 11 comprising:

a second layer of substantially transparent material interposed between the back surface of the first layer and the support layer, with said remaining portions of the beads protruding into the second layer to increase the size of the light transmissive apertures through the first layer.

13. (New) The light filter according to claim 12 in which the beads have a radius R, and the thickness of the second layer is not greater than R.

14. (New) The light filter according to claim 13 in which the thickness of the second layer is about ten percent (10%) of R.

15. (New) The light transmissive filter according to claim 11 in which the material of the beads has a selected index of refraction; and